



### Synonym

HLA-E\*0103 & B2M & CMV UL40 (VMAPRTVLL)

### Source

Biotinylated Human HLA-E\*01:03&B2M&CMV UL40 (VMAPRTVLL) Complex Protein(HL0-H82E7) is expressed from human 293 cells (HEK293). It contains AA Gly 22 - Ile 305 (HLA-E\*01:03) & Ile 21 - Met 119 (B2M) & VMAPRTVLL peptide (Accession # [P13747](#) (HLA-E\*01:03) & [P61769-1](#) (B2M) & VMAPRTVLL).

Predicted N-terminus: Gly 22 & Ile 21

### Molecular Characterization

Biotinylated Human HLA-E\*01:03&B2M&CMV UL40 (VMAPRTVLL) Complex Protein is produced by co-expression of HLA and B2M loaded with CMV UL40 peptide.

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 36.2 kDa and 13.7 kDa. The protein migrates as 40-43 kDa and 12 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

### Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

### Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

### Storage

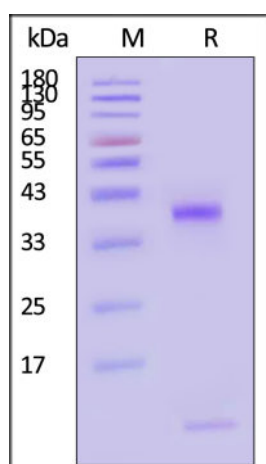
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

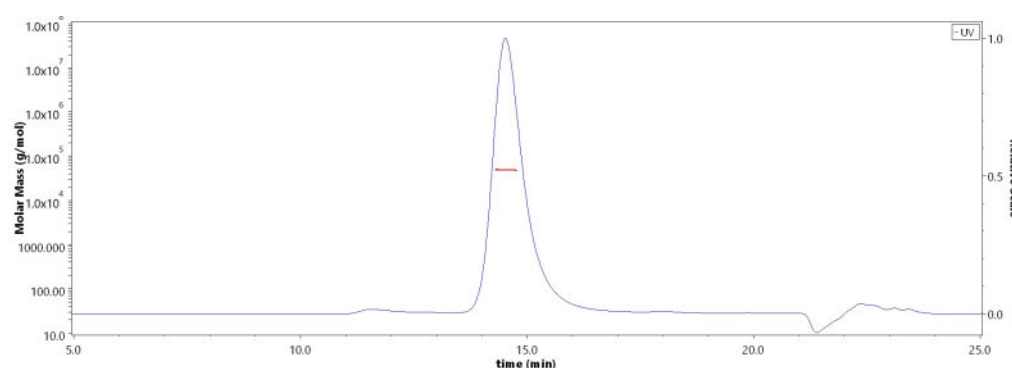
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### SDS-PAGE



Biotinylated Human HLA-E\*01:03&B2M&CMV UL40 (VMAPRTVLL) Complex Protein on SDS-PAGE under reducing (R) condition. The gel was

### SEC-MALS



The purity of Biotinylated Human HLA-E\*01:03&B2M&CMV UL40 (VMAPRTVLL) Complex Protein (Cat. No. HL0-H82E7) is more than 90%

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# Biotinylated Human HLA-E\*01:03&B2M&CMV UL40 (VMAPRTVLL) Complex Protein (Monomer, MALS verified)

Catalog # HL0-H82E7



BIOSYSTEMS  
**Acro**

stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.  
[Report](#)

## Background

HLA-E belongs to the HLA class I heavy chain paralogues. This class I molecule is a heterodimer consisting of a heavy chain and a light chain (beta-2 microglobulin). The heavy chain is anchored in the membrane. HLA-E binds a restricted subset of peptides derived from the leader peptides of other class I molecules. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domains, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exons 6 and 7 encode the cytoplasmic tail.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

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